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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,946	03/05/2002	Hideyuki Motoyama	FUJI 19.494	6413

26304 7590 11/23/2005

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EXAMINER

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/090,946	<b>Applicant(s)</b> MOTOYAMA ET AL.	
	<b>Examiner</b> Barry W. Taylor	<b>Art Unit</b> 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-4 and 9-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Suonsivu et al (6,542,581 hereinafter Suonsivu) in view of Kao et al (6,292,515 hereinafter Kao) further in view of Ko et al (6,356,585 hereinafter Ko).

Regarding claims 1 and 9. Suonsivu teaches a DSL communication method for interconnecting a user and a center (see figure 2) comprising:

monitoring a signal-to-noise ratio of an accepted DSL (see figure 3 wherein step 3 "get S/N" reads on monitoring signal-to-noise);

judging whether or not the S/N ratio is within a predetermined range. See figure 3 wherein system reference values are first established (i.e. step 1 establishes S/N reference value that the measured S/N value measured in step 3 is not allowed to fall below), next figure 3 shows judging (i.e. step 4) wherein "get S/N" obtained from step 3 is compared to system reference value S/N ref.

Suonsivu does not explicitly show interrupting the intercommunication once the and thereafter reconnecting the user and center, when the S/N is judged not to be within the predetermined range for a duration longer than a reference time. However, Suonsivu discloses adjusting power level to achieve desired transmission quality for predetermined time (see "Wait" period step 8 figure 3).

Kao also teaches a DSL communication system and method wherein the system can select a first or second adaptation routine to handle changes in bit and gain loadings of DSL protocol (abstract). Kao discloses using a fine tune process that is adaptable and flexible enough to be used in conjunction with standard modem initialization (col. 6 lines 54-58). In other words, Kao provides for real time, adaptive, high-speed communications system which, even after initialization, continues to dynamically alter transmission parameters (col. 5 lines 24-34, col. 6 lines 26-31, col. 15 line 45 – co. 16 line 67). Kao discloses an iteration criteria parameter can be implemented so that the number of iterations or total timeout period can be controlled (col. 7 lines 43-67). Kao further discloses bit and gain routine allows for fine-tuning the system best suited for particular needs (col. 8 lines 9-20). Kao discloses using an

adaptive compensation allowing for adjustments after modem initialization (col. 15 line 45 – col. 16 line 67). Kao invention allows for faster setup and adjustment times (columns 19-20).

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the invention as taught by Suonsivu to use adaptation routine as taught by Kao for the benefit of quickly achieving data transfer mode.

According to Applicant, Suonsivu and Kao fail to teach fast retraining that uses current transmission characteristics (see paper dated, 9/16/05, page 11).

Ko teaches power cut back for modem communication wherein the measured signal-to-noise ratio is used (abstract, col. 4 lines 6-53, col. 6 lines 10-27). Ko discloses that when signal-to-noise ratio not within predefined range the modem interrupts before returning back to data mode (figure 5, col. 8 line 24-65) so as to reduce noise while saving power.

It would have been obvious for any one of ordinary skill in the art at the time of invention to utilize the teachings of Ko into the teachings of Suonsivu and Kao in order to reduce noise and save power.

Regarding claims 2 and 10. Claims 2 and 10 do not contain any additional features, which, in combination with the features of claims 1 and 9 would lead to a novel subject matter. The Examiner notes that setting upper and lower limit for a predetermined or target operating range, as defined in claims 2 and 10, would be an

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obvious measure to a person with ordinary skill in the art. Furthermore, Suonsivu sets an operating range for S/N (see figure 3 and col. 5 lines 31-37).

Regarding claims 3-4 and 11-12. Suonsivu shows arbitrarily setting delay time (see delay time step 8 figure 3).

### ***Allowable Subject Matter***

2. Claims 5-8 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (571) 272-7499. The central facsimile phone number for this group is **571-273-8300**.

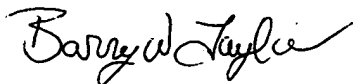
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Centralized Delivery Policy: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the central fax number (571-273-8300).

A handwritten signature in black ink, reading "Barry W. Taylor". The signature is fluid and cursive, with the first name "Barry" and last name "Taylor" clearly distinguishable.

Barry W. Taylor  
Primary Examiner  
Technology Center 2600  
Art Unit 2643